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FOREMAN TRAINING METHODS

By the Committee on
FOREMAN TRAINING

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NATIONAL PERSONNEL ASSOCIATION

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FOREMAN TRAINING METHODS

INTRODUCTION

In submitting its report to the Association the Committee on "Foreman Training" this year attempts an impartial presentation of the several methods that are in most common use in the movement to improve foremanship. It is particularly important at this time that a report of this kind should be placed before those who are interested. There has been some variance of opinion among the leaders in this work as to the values of different methods which in turn must have had its reflection among the manufacturers who have contemplated the adoption of foreman training activities. No apology is needed because of these differences, they are a natural process in the development of most activities that are worth while.

The personnel of this year's Committee comprises men who are well informed upon the various methods. Each has presented briefly his viewpoint of the scope and the limitations of these methods. The Committee have, in turn, enlarged upon or have emphasized specific features of individual reports so that the presentation of each method carries with it the thought of the Committee.

No One Method Endorsed

No one method is more highly endorsed than another. This has been and should be avoided. Selection of method is too closely allied to operating conditions and these are so varied that specific recommendation is impossible. Combinations or adaptations of methods are often desirable but must be arrived at through a determination of the aim desired, a study of the conditions under which the work is to be done and a matching of the method possibilities against these. The principle which applies in matching Job Specifications vs. Man Qualifications may apply equally in matching Foreman Training Specifications of a given plant against Method Qualifications. Intensive methods must be used where intensive results are desired and likewise extensive results are produced from extensive methods. If broadcasting is desired broadcasting methods should be used, but if individual training is required a method suited to intensive work regardless of the size of the organization should be selected.

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Types of Method

Although there are numerous variations of method the entire group seem to boil down to at least four principal methods. They are 1. Lecture Method, 2. Conference Method, 3. Text Study Method, 4. Field Training Method.

The first three are essentially instruction methods, the fourth opens up the possibilities of the purely training phase. It is important to note that much attention is being given to the development of this phase of the work and the field for improvement in this direction is unlimited.

Follow-Up

A paper is included in the report which outlines some of the ways in which Foreman Training can be followed up and continued in the plant. This, too, is important as the job of improving foremen must be continuous rather than sporadic if the best results are to be obtained.

Production Conferences vs. Training Conferences

Finally an attempt is made to clarify the misunderstanding that so frequently occurs between conferences of foremen held for Production purposes and conferences held for Training purposes. This discussion may at first seem somewhat foreign to the purpose of this report but when it is realized that the periodic meetings at which foremen and others settle current production problems are often considered as a method of training foremen, the propriety of including the paper in this report will be recognized.

While most of the training of foremen in the past has been for job improvement purposes, *i. e.*, improving men who are already foremen, much attention is now being given to the preparation of future foremen. As affecting selection of methods it is to be borne in mind that in the preparatory type of training a limited knowledge of foremanship must be assumed and a method selected which is adapted to students whose foundation of experience is limited.

In all its discussions the Committee has concentrated upon the thought that good industrial non-comm's must be trained and here as in the Army the method utilized in the training is of the utmost importance. Right selection comes through clear understanding and it is hoped that this report will contribute to this end.

PART I. THE LECTURE METHOD

Of all the methods which have commended themselves for use in the development of foremen, the one which has had probably the widest use but the least acknowledgment has been the Lecture Method. Strange as this statement may seem it is unquestionably true that the direct Lecture Method in which paid lecturers are hired to give talks to foremen and through the variations of this method down to the shop talk by a staff member of the Company organization are most commonly mentioned in connection with the development of foremen, yet it is equally true that any discussion pertaining to Foreman Training among those versed in the subject is evidenced by an attempt to avoid the acknowledgment of the use of this method.

Reasons For and Against Lecture Method

There are numerous reasons for the somewhat common selection of this method among which are the following:

1. It is, perhaps, the easiest to operate.
2. Equally, it is usually the most economical.
3. It is a commonly accepted method of education.
4. It lends itself readily for use in large groups.
5. It is very easily promoted.
6. The lecture itself is possible of duplication and distribution.
7. It is sufficiently effective where the aim is only to impart information without developing thinking capacity.
8. It has its most effective use where the previous training or mental equipment of the members of the group is sufficient to enable them to absorb the content of the lecture.
9. It is effective where the aim of the work is inspirational rather than instructive.
10. It has a pronounced value when used to supplement other methods.

The arguments commonly used against this method are that:

1. It is the least effective of all methods in the stimulation of the thinking process.
2. It is not well adapted to the type of man commonly found among the foremen.
3. It produces at best only temporary interest.
4. It may very easily add to his complexities either through the limitations of his own capacity or the inability of the expert to come down to his level.

5. There is always the difficulty of securing group leaders or Lecturers with the sympathetic viewpoint that comes from a knowledge of actual foremanship problems or who know foremanship from the standpoint of what it is rather than what they think it should be.

6. The method is too easily recognized by the foremen as a superimposed pouring in process rather than a development process of which he is an integral part.

7. It is a device for giving information, but not for training.

8. There is commonly a lack of sequence in the lectures.

9. There is usually a low degree of correlation between theory and practice—lecture and job.

The above analysis of the Lecture Method is only partial and serves to indicate some of the conditions under which it may be expected to apply effectively and as well attempts to state some of its limitations. Unquestionably there is the possibility of difference of opinion and argument, particularly upon its limitations, but the analysis may be said to represent a fair statement of the possibilities and restrictions of the Lecture Method as viewed by the Committee.

Where Best Applied

It is unquestionably true that the Lecture Method is possible of application and in many cases is very desirably used in the work of improving foremanship, but again it is emphasized that greatest effectiveness comes where the aim is only to inform foremen without attempting to concentrate upon developing their ability to think their way through the problems of their daily work in accordance with the accepted standards of performance that are set up by the management.

It may be said that the Lecture Method may apply where it is the aim of the Company to inform their foremen of Company policies without necessarily training them to think through to the application of those policies in the performance of their daily work. Again the Method may apply where it is the intention of the Company to inform foremen of the interrelationship of the various departments of the plants in order that they may have better comprehension of the effect of their work upon those departments and of the dependence of those departments upon the foremen's performances. An illustration of this would be for the employment

manager to talk to a group of foremen about the employment department and its relationship to the foremen. Where the organization is low in morale a careful selection of leaders may serve to produce enthusiasm and inject spirit into the organization. When it is desired to incorporate new systems or make other new departures, the Lecture Method may be used advantageously to inform foremen of the new work and their participation in it.

The Lecture Method is a deductive method which leaves the foremen to apply general conclusions to his specific cases as contrasted against some of the other methods which are essentially inductive, wherein as a result of the discussion of particular cases general conclusions are reached which govern the future practices of the foremen involved. The contrast of the Lecture Method against other methods is then a contrast of deductive methods and inductive methods.

It is well to mention here something of the conditions under which the Lecture Method may or may not work favorably, for the selection of methods is governed as much by instructing or training conditions as by its inherent characteristics. The contribution of training conditions is equally to be considered in the selection of other methods.

It may be assumed that the Lecture Method is the safest to select when the groups are large and represent foremen from varied types of work. This would be particularly true in foremen development work that is carried on in a community centre wherein foremen from a number of different manufacturing plants are brought together for improvement purposes. Under such conditions due to the nature of the group the subject itself must be more or less general in its application.

The method is also particularly to be commended for use where groups are very large, involving from fifty to one hundred or more foremen. The thought may also be contributed that this method **may be very acceptably** used with groups conducted in the evening, upon the theory that at the close of his day's work a foreman is not in a mental condition that would permit the extensive analysis used in other methods but he may be expected to listen to an address or lecture that would not call for mental effort upon his part at the time.

Where the firm is of the opinion, however, that foremanship improvement should be carried on in the plant during working hours, but necessarily, under these conditions, permitting only a

comparatively small number of foremen to be absent from work at one time, the acceptability of the Lecture Method is open to question. Under these conditions, it is safe to assume that the group itself would soon lose patience with the lecture idea and by force of their own control, and such must be recognized, carry out discussions concerning particular problems with which they are in contact in the plant. This illustration is simply given to emphasize the fact that in selecting the Lecture Method particular study must be given to the characteristics of the group of foremen to be dealt with and as well that a considerable amount of control rests in their hands as to the successful outcome of the use of this method.

Adaptations

One of the adaptations of the use of the Lecture Method has been to combine lectures with discussions. Under this plan the Lecture is given upon a given subject followed by discussion of the lecture by the group. In the lecture a general conclusion is usually put over in the discussion which follows the foremen's attempt to discuss the lecture in terms of their specific problems. While this may be said to be an improvement over the straight lecture type of work the question is raised as to whether greater returns in the organization may not be expected from the converse of this method, in which after discussing a number of particular cases centered upon a given problem, the group reaches a general conclusion which they may apply in future instances of the type.

A combination is also effected in the use of lectures and prepared text. In such instances the lecture is based upon the text which is studied before or after the lecture. Discussion either of a general nature or confined to specific questions in the text may follow. This practice is generally followed where it is the desire to inform foremen beyond their immediate jobs rather than to confine the work to improvement in already known responsibilities. It may be used in either case however.

It is both unsafe and unfair to say that the Lecture Method is not adaptable to improving foremen. It is effective under certain operating conditions. The successful use of the method comes, however, as in other methods, namely, by arriving at: 1. the aim of the development, 2. the character of the group to be dealt with, 3. the conditions under which the development must be operated.

PART II. THE CONFERENCE METHOD

The conference plan of foremanship training is quite commonly referred to as a *type* or a *kind* of foreman training course. The conference is not really a plan but is essentially an organization device for handling certain kinds of objectives with a group of foremen; therefore the term "conference plan" is somewhat misleading.

What It Is

Many foremanship courses are organized on the basis of a certain content to be put over to a group of foremen, the assumption being that the men are ignorant of the subject matter of the particular lesson and are present in the class for the purpose of being definitely instructed. Under the so-called conference plan a foremanship course is set up in terms of objectives to be attained rather than content to be taught, the idea being to develop the thinking of the foreman with regard to their responsibilities on the job, rather than to instruct them on new subject matter.

In any foremanship course the conference, as an organization device, is not suited to certain objectives. As a matter of fact, it is not at all suited to any objective concerning which the foreman have not had considerable experience. It is inconceivable that any foremanship course could ever be carried through completely by the conference plan alone. A competent instructor would use the conference organization for certain sections of his work, for others he would teach a developmental lesson, and again, for certain kinds of objectives, dealing with subjects entirely new to the men, he might give a series of lessons of an informational character.

Briefly, there are three principal devices which a foremanship instructor could use in carrying on his work with a group of foremen: (1) the conference, (2) the developmental lesson, and (3) the informational lesson.

It would be absurd to attempt to conduct an entire course in foremanship training by using exclusively any one of these three plans or organization devices. A competent instructor or leader should be ready to use whatever device is best suited to the special work to be done. It would be a very easy matter to discredit any plan or organization device by using it for objectives for which the particular device selected was unsuitable. The nature of the objectives set up, the average age and the experience of the men, the

conditions under which the work is to be carried on, and the skill and experience of the instructor or leader should be carefully considered before deciding upon a definite plan to be followed. The ideal would be to have an instructor or leader who was skilled in using at least the three devices previously mentioned and who could use them according to the particular conditions under which he was working and the particular objectives to be attained. As has been stated before, the conference is a device, not a plan, for handling certain types of objectives.

Characteristics of the Conference Organization

Among the more important characteristics of the conference plan of organization are the following:

1. *The members of the conference group must have the necessary background of industrial experience.* This is indispensable because the conference is essentially a developmental and an organizing procedure.

2. *The relationship of instructor and learner, or teacher and pupil, is neither set up nor implied.* Where a leader is using a conference organization skilfully the men do not feel that they are in school for the purpose of being taught something concerning which they are uninformed.

3. *The size of the group must be limited.* For efficient conference work experience indicates that a conference group of 16 to 18 is most desirable, and that 20 is the absolute maximum.

4. *A well qualified leader is necessary.* Effective conference work will be done in proportion as the conference leader is qualified by training, experience, and personal characteristics for this important and difficult work. In dealing with foremen much of an instructor's or leader's success will depend upon the degree to which he can function as a teacher without having the members of his conference group look upon him as an instructor or teacher. Even though a conference may deal wholly with matters already known to the foreman, if the leader handles the conference successfully, *with the result that the attitude of mind of the foremen toward their responsibilities is changed so that they will want to improve their procedure in handling their men* or in the performing of any of their other duties, he has certainly functioned as a teacher although he may not have definitely instructed the men on any subject that was new to them.

Suitability of Objectives

The conference organization, while conspicuously effective for certain objectives with a group of experienced men, is not suitable for every purpose. The objectives which would be set up for most technical courses obviously would be handled more effectively by the class organization than by the conference plan.

To illustrate, a capable instructor would never attempt to teach the elementary principles of mechanics by means of a conference. For men who are constantly dealing with forces and their effects he would certainly utilize their past experiences and would teach the subject in a developmental way. At the same time he would most certainly have to do one of two things, either he would teach these principles directly to the men or he would let them teach themselves from a textbook.

Such topics as *the giving of orders to men on the job* or *the handling of the careless worker* could be adequately taken care of by the conference organization as distinguished from the classroom organization, because every foreman has taken orders and has given them since he first became a foreman, and he has had to contend with carelessness on the job on the part of the men working under him.

The Make-Up of the Group

The success of a foremanship program depends to a very great extent upon the make-up of the group. For the highest efficiency all the members of the group should be from the same organization and should be, preferably, men of about equal rank in the organization. Separate groups should be organized with the general idea of having each group include only men of approximately equal rank.

It is generally recognized that the presence of a general manager, or other high executive of the organization, tends to reduce the amount of full and free discussion of cases because the men do not feel perfectly at ease. While it is undesirable to have a mixed group of department heads, plant executives, and foremen at one time, it is necessary for the best results to have conferences with plant executives and department heads parallel with the foremen's conferences.

The type of conferences with plant officials is quite different from that held with foremen, and this in itself would be a big enough subject for a separate report. In substance, however, the purpose of these conferences is to discuss the work being done

with the foremen, not with the idea of reporting all details or all cases that may have been considered, but with the idea of going over the progress which has been made in the foremen's meetings and discussing ways and means for capitalizing upon the work and maintaining improved conditions in the plant.

Organization of the Course

During the past few years a variety of plans have been tried out ranging all the way from one 2-hour meeting per week to an intensive program of 6 hours per day extending over a 2-week period. Those who have had first-hand experience with this work are of the opinion that the intensive plan makes for the highest efficiency.

In making arrangements for the course in any individual plant this point should be kept in mind, namely, that efficiency will decrease in proportion as the work is handled through infrequent meetings extending over a long period of time and will increase in proportion as the program is made intensive.

It is generally agreed that the best results are obtained under the intensive plan extending over a total period of time ranging from 36 to 72 hours. It would hardly be worth while to organize a program for less than 36 hours, and after a total period of 72 hours it seems to be in the interest of efficiency to bring the conference to a close and let the men have a chance to think over and assimilate the work that has been covered.

The end of this formal period of training, however, should not mark the end of the work. Following an intensive program of, say 60 to 70 hours, with a vacation or rest period of possibly a month, it would be desirable to have regular meetings with the foremen, say once a week, with the idea of further continuing and maintaining interest in the work.

Methods of Instruction

Because of the fundamental differences between a conference and a classroom organization, ordinary instructional methods are not suitable for conference work. There are, however, two principal methods used by a conference leader: (1) The case method, and (2) the question method. In using both of these methods for any given topic, analysis and discussion play important parts.

In following the first method a case is the starting point for analysis and discussion. In using the second method a series of questions of a thought provoking character is used. These questions, or points for discussion, quite often are intentionally made somewhat ambiguous in order to encourage a difference of opinion

on the part of different members of the group. Strictly speaking, neither is a method in the same sense that the lecture or the demonstration are distinct methods of instruction. In other words, "methods" does not exactly express the meaning.

By some who are not fully informed in regard to the conference organization it is assumed that the work is carried on by more or less rambling and aimless discussion. Such, however, is not the case. A skillful conference leader, while encouraging discussion and free expression, aims to head up the discussion toward some definite and desirable conclusion. To use a mechanical analogy,—in the foremanship conference the foreman furnish all the motive power and the leader does the steering and directing.

Conclusion

The conference as an organization device should not be expected to meet all the conditions that will prevail in carrying on foremanship work. The conference, as distinguished from a classroom organization, has no magical qualities which will cause any given foremanship course to be a success. A competent instructor will recognize its value for the particular purposes for which it is suited, but will not hesitate, even though he is carrying on foremanship work under the so-called conference plan, to switch over to a classroom organization when the conditions are such that this would be in the interest of higher efficiency.

The conference is wonderfully efficient for the work for which it is suited, and it is believed by those who have had most experience with the so-called conference plan that it is a very effective way to start a program of foremanship training.

A successful foremanship conference, with the necessary follow-up work, results in creating a real and active interest in education and training on the part of the foreman. And whenever this result can be secured, it is obvious that the entire working force will be affected to some degree in the same way. Thus the conference incidentally serves as a device for promoting many types of worthwhile courses, such as technical courses of a trade extension character, general educational courses, instructor training courses, and the like.

Summary

The following summary is given of the principles which underlie the Conference Method together with its advantages and its limitations:

1. Principles Underlying the Conference Method:

a. The meetings tend to be more or less informal in nature, or in other words, are not marked with the degree of stiffness which almost invariably marks them when lectures are given. If rightly conceived and executed it not only invites but succeeds in securing general participation in the discussion.

b. The leader or leaders—for there may well be more than one—is or are more or less skillful in promoting or provoking thought on the part of the group members; likewise competent to steer the discussion in the desired direction. That is, they know how to guard against more or less useless discussion, something which, unfortunately, is likely to result under weak leadership.

c. Topics for discussion must be carefully chosen and as carefully defined.

d. The topics must be of interest, though not necessarily of vital interest, to all members of the group. This is equivalent to saying that the topics for discussion are to be drawn from the difficulties which confront the members of the group from day to day. So far as the conference method is concerned, this is absolutely necessary.

e. The leader must use terms which are free from ambiguity. The use of academic terms to any great extent will make success doubtful. Illustrations from shop life need not always be used though they usually meet with approval.

f. An essential part of the necessary preparation consists in getting together a number of pertinent questions bearing upon the topic under discussion, which questions are to be used by the leader for provoking discussion.

g. The more familiar the leader is with the production problems with which the foremen must struggle from day to day, the greater, other things being equal, will be his success.

h. In the main, better results will come if at the conclusion of each session or conference, a brief statement regarding the next topic is given and something in the way of an assignment is made. While not a great deal can be expected in the way of preparation, especially at first, foremen will increasingly respond to this sort of stimulus and will eventually apply themselves energetically to meeting anything in the way of reasonable assignments.

i. Care must be exercised by the leader that the discussion leads somewhere each time. Interest cannot long be maintained if the men have to go away empty, so to speak. Some definite conclusions are necessary at each meeting, or, if not that, then agreement to disagree.

j. The main points brought out through discussion should be jotted down and placed in each foreman's hands within a day or so after the meeting. Foremen will prize such material if it is put up in a readable form.

2. Its Advantages :

a. It is informal in nature, which informality accords closely with the foreman's attitude towards life as well as with his idea as to the way work of this character should be conducted.

b. It gives every member a chance to participate. This is really a two-fold advantage since, first, it assures, in case the various individuals participate, greater development, other things being equal, than if they were silent listeners and second, it results in an exchange of views, which, in turn, eventuates in better understanding and greater sympathy, both of which are indispensable to a high degree of cooperation.

c. It encourages self-analysis as well as analysis of individual difficulties. More than that, it may,—in fact it should,—provide individual foremen with a technique of procedure for getting to the bottom of many of their difficulties.

d. It makes possible the closest connection with the foremen's daily difficulties, than which there is no factor which counts more toward success. What the foreman desires above everything else is help toward the solution of his daily problems. The course or method which provides this to the greatest degree has a very pronounced advantage over others.

e. It assures a training course of great flexibility. For example, if the particular topic or problem under discussion proves to be of unusual importance locally, several sessions, rather than one, may be given over to its consideration.

3. Its Limitations :

(1) The discussions may wander afield, or, in other words, may get nowhere in particular, if the leader lacks competency.

(2) Again, while the discussions may be fairly definite in nature, unless the leaders have laid the course out with the idea of getting certain important principles deduced and "driven home," little good will be derived therefrom.

(3) Purely personal remarks, so disruptive to progressive measures, sometimes creep in.

(4) It often needs the stimulating effect of an inspiring lecture. Whether or not this is true usually depends upon the leader.

PART III. THE TEXT STUDY METHOD

This method is so characterized because it represents a considerable group of activities which are typical in that they have as a background a specially prepared text from which assignments for study are made or from which problems are selected for discussion.

Two Types

There are two procedures for handling this work. In the first the text is developed and presented by the company itself, and in the second the text is prepared and presented by agencies outside the company which specialize in such work and are unquestionably well equipped to handle it.

In the latter group there is again a subdivision into group study work and correspondence study work.

Both types of work are to be commended in the fields they serve. The group study work is essentially the extensive type of instruction, the correspondence study savors more of the intensive type, perhaps, but it is open to the criticism to which all standardized courses have been subjected,—namely that they are too general. This objection however is not always well taken for general courses have their place and function.

Standardized Study Courses

Distinct from the method of training foremen entirely through conference discussions, or lectures, is the method of using a standardized foremen's course for group-study. The latter usually consists of the following instructional elements:

Features.

1. *Specially prepared text material* written in plain language and covering only those phases of production management with which the foreman is directly concerned. The subjects considered most essential for text treatment are Self-Analysis, Job Analysis, Teamwork, Handling People, Organization, Production Control, Records, Care of Equipment, Management Policies.

2. *Interesting problems or projects or exercises*, related to the text, which call for written solution, and enable the foreman to think his way through a series of concrete cases. If, for example, the current text assignment is on the subject of Handling Workers, the problem may state a hypothetical case involving the use of judgment and tact in ironing out a troublesome group of workers. The foreman is asked to put himself in the place of the man in charge and set down how he would go about straightening out the trouble.

Or he may be asked to set down a complete analysis of his own working force and describe in detail just how he is applying the principles in the text to his own department. These written reports are submitted to a central staff for comment and criticism and are usually returned with constructive comment and grading.

3. *Weekly or fortnightly group meetings*, at which the text material is reviewed, the problems or projects discussed, and applications of the study to the local plant situation worked out. In the small plant where less than thirty men are eligible for foreman development, these meetings can best be handled by a group leader or chairman and should be informal in character. In concerns where the group numbers from thirty to seventy-five, the best plan is to have a lecturer talk on the subject in hand and then throw the meeting open to questions and discussion. In still larger plants, the lecture meetings may be ever so large, but they should be supplemented by section meetings composed of small groups, with a team captain in charge of each, thus providing intimate discussion of each department's problems in the light of the text study, written work and lectures.

The foremen employed in small isolated shops where no opportunity for class training is afforded can avail themselves of the first two features of the standardized course by enrolling for correspondence instruction. Foreman training by means of correspondence is not by any means limited to the isolated foreman, however. Desirable class and correspondence programs are frequently developed with success. The institutions conducting special management courses for foremen report that many foremen throughout the country have taken advantage of this form of instruction and that their record of study is far above that of the average correspondence student.

A few large companies have prepared their own courses, using the standardized method with specially prepared text material, problem work and group meetings that deal exclusively with their own industry. This type of company course is described in this report, and it is pertinent to point out here such courses belong in the category of standardized instruction, involving the use of independently prepared study material as contrasted with the "conference" plan of letting the group evolve its own instruction material.

In appraising the value of the standardized course in foremanship for the average plant, certain basic questions must be met. The chief ones are:

1. Does it give the foreman what he most needs?
2. Is it too general to be of practical use to him?
3. Will a group of foremen study it with enthusiasm and follow it through?
4. Are the benefits lasting?
5. Can the same result be accomplished at less expense?

The Committee has considered these questions carefully and presents the following comment:

Does it give the Foreman what he most needs?

The purpose of the standardized course is to combine the effects of individual and group study. Most plant executives agree that the individual foreman needs to know more about the executive phases of his job. He cannot do his part in a well organized production team unless he is familiar with the modern machinery of management. He must understand the principles of economics and organization, of routing, scheduling and production control, of personnel administration, including the selection, handling, up-grading and disciplining of workers. Not only must he be familiar with this science of modern management, but he must also be in sympathy with it, if he is to cooperate whole heartedly in making it function. Insofar as a prepared course presents this knowledge compactly, clearly, simply, in language easily understood and devoid of abstract theories, it is providing a necessary background for foremen development. If, in addition, it succeeds in "selling" the foreman on the advantages of scientific over rule-of-thumb production methods, it is motivating him to more active cooperation with all the staff departments. Whether the foreman will grasp this new knowledge more quickly through actual study than through lectures or Socratic seminars is an open question, but there can be no doubt that the content of the sound standardized course is vital to the large majority of foremen in industry today. The standard course should not be regarded as the be-all and end-all of foremen education. Its limitations should be recognized and provision made to fit it into a comprehensive scheme of gradual up-grading of the individual and the group.

Is the Standardized Course too general?

This is a valid criticism of all standardized education. Certainly, no standard course can be expected to treat in its subject matter only those problems characteristic of a particular plant. When the true function of such a course is remembered, however, this objection loses some of its force. The type of course under discussion

is purely ground-work, foundation building. All production rests on certain basic principles of management which the foremen ought to study and absorb. It is with these fundamentals, made clear and convincing through apt illustrations, that the standard study course is chiefly concerned. Beyond this, it is doubtful whether any but exceptionally well educated foremen can be taught by the text book method. The average foreman has only a sixth grade education and is scarcely equal to the demands of advanced scholarship. This is why the ordinary academic text books on management used in schools and universities are of little use in foremen training. The standardized foreman's course performs the *extensive* function in education—like the public school system—giving the entire supervisory force quickly the necessary fundamental training in teamwork and management. That is why it must be general in character. The conference or seminar method of training, on the other hand, performs the *intensive* function—giving to selected small groups particularized instruction. Far from being mutually exclusive, the two are reciprocal. One should supplement the other, if the most thorough results are to be secured.

Will Foremen follow through a study course enthusiastically?

The answer to this question depends largely upon the character of the course, the attitude of the management toward it, and the efficiency with which it is conducted.

If the study material and written exercises are stimulating and neatly adjusted to the foreman's interests and type of mind, he will usually find the work anything but a task. If, however, the course has been prepared in academic fashion, dealing in abstractions and heavy in style, it will not appeal to the average body of foremen.

The attitude of the management is next in importance. Where the plant heads get strongly behind a study program, not only giving it their endorsement, but showing their willingness to participate in it themselves, the entire group is likely to respond enthusiastically and carry on to the finish.

The most important factor in the success of a study group, however, is the skill with which every feature of the work is conducted. Just as the conference plan of training depends for its success upon a well qualified leader who can command the respect of the foreman and who has the rare faculty of combining sound teaching ability with practical knowledge and magnetic personality, so a group study course will forfeit the foreman's sustained interest unless the organization in charge of the work is thoroughly competent. The

problem criticism must be given careful attention; it must be handled by practical production men who know from experience the foremen's problems and point of view. Most important of all, the meetings must be handled by men thoroughly experienced in getting ideas across to shop men. The professional type or the highly technical type of man can rarely put the necessary force or inspiration into a talk to foremen. Likewise, the amateur group leader is apt to lose his hold on the group after the first two or three meetings. If a specially trained lecturer of forceful personality handles the meetings, inspiring the men in their effort at self-improvement, there is every reason to expect a large percentage of completions. One organization that has conducted a standardized course in production methods for more than thirty thousand foremen, reports that during the past two years over 88% of all the required written work was completed. This seems to point to the conclusion that foremen will follow through a study course enthusiastically if it is rightly handled.

Are the benefits lasting?

The real problem in foremen training seems to consist in helping the foreman apply in his daily work the new ideas he has gained. The degree to which this is achieved determines the permanency of the benefits from any training of whatever type. It is natural that the effect of a short program of text study, written work, lectures and conferences, however much it may energize the thinking of the men, will wear off somewhat if it is not followed up in a consistent way. This cardinal point has been stressed by all those connected with the foremen training movement, viz.: the development of better foremanship should be a *constantly continuing process*. After the fundamentals of plant management and teamwork have been imparted to the entire supervisory force through a successful group study course, provision should be made to link up the knowledge gained to the actual job of each man. This can be done through periodic conferences under a skilled leader, through the provision of a specialized company course, or through personal coaching by a well qualified representative of the personnel department. These are some of the ways in which the benefits of the training can be made permanent.

Can the same result be accomplished at less expense?

In the first place, it seems fair to say that the cost of any program that produces better foremanship is likely to prove a good investment. If the improvement in teamwork, reduced turn-over,

lowered costs and labor harmony measures as little as 5 or 10% (and most concerns estimate it at a more liberal percentage) the total saving effected far overshadows the initial expense. Secondly, it must be borne in mind that a comprehensive course of group-study accomplishes in a few months what would otherwise take a much longer time to bring about, namely, the unification of the ideas on management of the entire supervisory force. The time used to accomplish a result is a big factor in the cost. The standard prepared course has the advantage of syndicating among many companies a considerable outlay for the preparation of special study material and for the maintenance of a high-priced instruction staff, thereby reducing the unit cost of educating each foreman.

Conclusion.

In conclusion, the Committee wishes to emphasize that the standard group study course has its distinct place in foremen development, just as other methods have. It can bring about quickly the stimulation of the entire supervisory force to a higher pitch of teamwork. It can plant in the foremen's minds necessary fundamental information about modern management. It can unify the attitude of the entire supervisory force toward plant problems and policies. It can do this effectively if the course is in the hands of an experienced staff. The further training of the foreman on the job, involving a close study of the particular problems of each department, must naturally be left to more intensive training methods.

The Company Course

A considerable number of companies are now organizing and carrying on training courses for their foremen entirely on their own responsibility and with the use of the talent already in the organization. The subject matter for courses of this kind consists entirely of the various activities which are peculiar to the particular organization. Among the subjects included may be

1. The history of the Company.
2. The organization of the Company.
3. The various functional departments such as purchasing, sales, laboratory, stores, accounting, maintenance, etc., with special emphasis upon the relation which exists between the production foremen and the various functional departments.
4. Various phases of the company's manufacturing processes.
5. The duties of foremen in relation to employment, health and

safety work, wage and wage setting, shop discipline, versatility and attendance records, initiating and instructing new workers, etc.

When a company prepares a course of this kind it does so with the object of making articulate to the foremen the details of its own policy on management. It does this on the assumption that a foreman, to be a success in a particular company, must be trained in the policies which are peculiar to that company. In other words, instead of teaching the art of foremanship in general, a company course attempts to teach foremanship as a part of its own business.

As a rule, one individual in the company assumes the responsibility for outlining the details of such a course and for preparing a series of short mimeographed units which may be used as a text. The information contained in these units is obtained directly from those executives and experts in the company who are in the best position to give it and who are primarily concerned in carrying out the company's policy in that particular field. The units are distributed to the foremen a few days or a week in advance of their meeting and the meeting itself may be led either by the man in charge of the course or by the department head or executive whose work forms the subject of the particular unit. For example, if the unit is concerned with the question of the foreman's part in the work of employment, the employment manager or the industrial relations manager may lead the meeting. It is unnecessary to have expert discussion leaders in order to promote a successful discussion meeting if the plan instituted by some companies is followed. This plan is to have at the end of each mimeographed unit a series of about 20 to 25 questions bearing upon the material in that unit, and the person who leads the meeting puts these questions in order to various foremen in the class. He does not ask for answers in general but puts each question to a definite man calling him by name. This is usually a successful means for starting a discussion because as soon as one man answers a question many others follow suit without waiting to be personally called upon.

Another advantage of this method is its negligible cost. It is unnecessary for one man to give his entire time to a course of this kind even in a large factory. Moreover, the only other expense connected with giving such a course is the mimeographing of text, typewriting, and the time of the foremen if the meetings are held on company time. Above all, there is the advantage of having a course which is based entirely upon the policies and details of the particular management and which is handled entirely by people within the organization itself.

PART IV. FIELD TRAINING OF FOREMEN

Probably the oldest method of developing supervisors and minor executives is that of making them on the job. When a vacancy occurred in the ranks of the foremen, a man was selected either from the group of workmen or from some smaller supervisory position, and he was tried out. He was given more or less assistance, advice and guidance by his superiors and if he adapted himself readily to his new responsibilities, he soon grew to be a foreman; if not, another selection was made and the experiment repeated.

This process is a form of field training as it has been operated in past years. While the system produced many excellent men, it always suffered under the handicap of lagging behind the demand of the industry. Men were being trained only under the pressure of an emergency, which meant that every organization was carrying a proportion of foremen who were not yet able to handle their jobs satisfactorily. Many companies have now come to see the advantages of keeping a supply of men who will be trained above their immediate jobs, if possible, and field training furnishes an excellent means of increasing potential capacity for responsibility.

What It Is

The first step in field training, as practiced by some industrial organizations, is the selection of the men who are to be given special attention. Intelligent selection requires the cooperation of the personal supervisor with the various superintendents and assistants who are forced to live in rather intimate contact with their men. Such plant executives are urged to make constant experiments along the lines of assigning extraordinary jobs, entailing supervision of men or materials, to different rank and file employees in their forces. If the employee, under an insignificant trial of this kind which may last only a few hours, demonstrates any ability, he is noted as a possibility for promotion and is soon given an opportunity to attempt some more difficult task. If he continues to show promise, he is given more specific instruction and assistance and after a number of such brief trials he can be considered as suitable material for promotion at some future date.

Up to this point the preliminary training and selection has been accomplished without the employee realizing that he is being trained for greater and more efficient service. When the opportunity arrives, he can be given regular supervisory duties and classed as a minor foreman, at which time his intensive training may begin. He has now entered the field in competition with many other men in

similar positions and his further development will be carefully watched so that he will not advance beyond his capacity.

The procedure from this point is similar to the preliminary process, except that the training of the candidate is more definitely planned. He is kept at a certain task until he has mastered the fundamental requirements, but is not allowed to fall into a rut in that job. He is then transferred to a position involving radically different duties and the ease with which he adapts himself is noticed. As opportunities occur he is placed first in one part of the works and then in another and, during all this time, he is being guided and stimulated by those who are watching him. In this way the man broadens his acquaintance among the works executives who might be able to use him permanently and he also acquires a good knowledge of the various phases of the business. If he has made proper use of his opportunities for development, he will soon find himself assigned indefinitely to some department where he can use and increase his knowledge and experience, to his own and the company's advantage.

Training of this kind need not be systematized to the extent of laying out a definite schedule of so many months involving one specific type of experience and so many at the next step, although some companies follow this procedure. A strict adherence to any schedule generally results in a duplication of supervision at many points, where the student foreman must work alongside of the regular foreman who is competent to handle his job without an assistant. A cheaper method is to utilize all vacancies, into which men can be placed temporarily, as opportunities for educating and developing growing foremen, who then become producers as well as students. The realization that they will be called upon to show results each day stimulates them to shoulder full responsibility. which, if they are not actually in charge, they tend to shirk. The system also provides excellent opportunities for discontinuing intensive training of any man who shows himself incompetent by permitting him to remain in some subordinate position without moving him to the next more difficult job.

Field training may be allowed to stand on its own bottom as a method of developing foremen or better foremen. However, there should be no difficulty in combining with it any other system of industrial education, such as the group discussion, lecture course, hypothetical problem solution, text study or correspondence school type. Undoubtedly much can be gained by such a combination of

theory and practice provided the man understands that he is taking the theory of his own volition to assist him in handling the specific jobs which he is filling. He should not feel that he is performing merely laboratory work as a part of a scholastic course which, at its completion, will have fitted him for a major position. Field training produces the best results when the training, of whatever nature, is made apparently incidental and applied as stimulation and guidance to assist the man in developing his latest capabilities.

Advantages

Among the chief advantages of the field training method is the reasonable assurance that it will produce desirable foremen. Any man who falls short of the necessary qualifications is dropped almost automatically. This weeding out results in the minimum amount of effort being wasted on men who are incapable, most of the attention being given to those who are actually developing as desired. When a man has progressed through the various stages of this training, his supervisors know what jobs that man can fill. Such knowledge obviates any experimenting after the training is completed and makes for a more satisfied management and a more encouraged employee.

Another advantage of field training is its flexibility. The plan can be operated equally well with one candidate or with one hundred. It enables the supervisor to acquire the intimate personal knowledge of each man and to give him individual attention. No two men need be handled exactly alike and the types and quantity of experience offered can be varied to suit each man's requirements or to qualify the man for some specific job which may be available. No group as such is involved and there is no graduating class for which jobs must be provided at a set time.

Another advantage is that there is no school atmosphere attached to field training. Many good men are afraid of joining any kind of a class which might entail regular outside work. Some men are prevented by a mock modesty from lining themselves up with a group in which they fear they might not shine. On the other hand, some men will agree to take a course of study merely for the effect which they hope to produce on the management and not because they are vitally interested.

The almost negligible expense involved in the field training program is another distinct advantage. There is no non-productive period during training and very little additional supervision is required. For this reason it is about the easiest form of training to

inaugurate in a plant which is not enthusiastic over intensive education. It can be started and maintained with nothing more than the cooperation of superintendents and head foremen, and it can be established without committing the management to any training policy.

Disadvantages

The disadvantages of field training alone are that it is difficult to give the men the general perspective of a foreman's job in the course of his daily duties; it is almost impossible to impart the desired theoretical knowledge of economics, labor and material markets, time study, wage plans, etc.; the men do not have the same opportunity to become acquainted and to discuss their real and hypothetical problems with each other. These disadvantages may be overcome by the simple expedient of using some other type of training, in the desired amount, to supplement the field training system.

PART V. FOLLOWING UP FOREMAN TRAINING WORK

Foremanship training is still more or less in the development stage and great possibilities for improvement exist in all the methods that have previously been outlined. Doubtless the work of the next few years will be, not so much the development of new methods, as better application of the methods already outlined to the conditions for which they are best suited. In other words, the future problem may very well be, to so supplement the method adopted and to so follow up the work as to get more real effectiveness from the training.

It would seem that foremanship training, up to the present time, has been largely an instructing process, in that it is confined almost entirely to group work, conducted in classroom, under various teaching methods. It is notably lacking in the application of the principles established by the instruction, and there is little assurance that the principles developed in conferences or the information imparted in the lectures or texts are carried into practice on the job. There may be exceptions to this, but they are few.

Little has been done in the way of following up the training or in supplementing it by auxiliary contacts, which encourage putting into daily practice the principles which have been preached.

Foremanship training, to be really effective must be a continuous process. Not only must the instructional and development part of the program extend over a long period of time, but also every opportunity must be taken to show the concrete application of the principles involved.

In order to get results, the men doing the training and the men being trained, must have the sympathy, backing, and co-operation of the superintendents and the management.

The superintendents themselves must not only put into practice what is being developed among the foremen, but they must also continually, by example and suggestion, encourage the foremen in their every day work, to apply the principles developed.

Methods of following up foremanship training, to secure effective results, do not lend themselves easily to systematic, organized procedure. Much of this work, like "field training," is of an intangible nature which can not be formulated and standardized in any specific way. Its application will be influenced largely by the size, type and personnel of the organization.

Methods of Follow-Up

An attempt will be made here to merely mention some of the methods and activities in the way of follow-up which may be used to aid in insuring effective results from any method of foremanship training.

The follow-up will be done most effectively through the foremen's superintendents. This means they themselves must thoroughly understand and believe in the principles and methods the foremanship training is developing. They must be in thorough sympathy with the work and must continually practice the principles.

In order to insure this being the case there should be some method of bringing the superintendents together for a common understanding as to what is being attempted with the foremen. Regular meetings of the superintendents to discuss what is being given the foremen, how they are using it, and how the superintendents are getting results, are of great value. The active interest of the superintendent, made evident to the foremen, will do much to help him put his ideas into effect. Suggestions and kindly criticism and constant reference by example, to the principles discussed will help the foreman in this every day practice.

Too much emphasis cannot be placed upon the importance of continual contact, on the job, between those doing the training and those being trained. Frequent opportunity should be afforded those being trained to get together and exchange ideas on how they are putting into practice the principles that have been developed.

There are many auxiliaries which may frequently be used as a follow-up to make the training more effective.

Special lectures of an inspirational or an instructional nature, if of a high character and if not held too frequently, will help.

The active circulation of books and magazines of the type that convey a live, practical interest will make the men continue to think about their problems.

If possible, a magazine, published especially for the supervisors in their own plant, will furnish a means of putting before them, from time to time, articles that should help them in their work. This will also serve as an advertising medium for the other auxiliary means of training, and as a conveyance for the exchange of ideas and suggestions among the foremen.

Inspection trips will broaden the interest and suggest new ideas.

Perhaps the most effective means of following up foremanship training is to be sure that those foremen who are putting into practice the principles developed, are given opportunity to be of greatest service to the organization and to themselves by proper transfer and promotion to more responsible positions.

Another important phase of following up the training is an attempt to measure in some sort of way, the real effectiveness of the training. This can never be done, directly, in dollars and cents. In fact probably no direct measure can be made, because there are so many variables. However, it is believed that effective foremanship training will be evidenced by more smoothly running departments, less labor turnover, better scheduling and planning, more co-operation and lower costs.

PART VI. PRODUCTION CONFERENCES VS. FOREMAN TRAINING

Most organizations which have an appreciable number of supervisors of any given grade conform to the practice of holding periodic meetings of such men. These meetings are usually led by the immediate superior of the group,—thus, the superintendent of a department having a number of foremen, would hold weekly organization meetings just as the general manager of an entire plant might hold weekly or even daily meetings with the heads of his various departments. The tone of these meetings is very similar. The general manager in his meetings of department heads usually discusses current problems which are of immediate importance to the organization and which have to do with such matters as schedules of production, purchase of supplies, departmental coordination, etc. The superintendent in meetings with his foremen also discuss the immediate problems of production within his department, including such items as production schedules, job progress, and coordination of the different divisions of his departments. In either case the subordinates meet for the purpose of receiving definite instructions or more properly termed *directions* from their superiors and to be advised in the problems of their organization. The fundamental purpose of the meeting is found in its contribution to organized control and in its inspiration producing capacity. The latter result may be produced either through fear or more worth while motives to carry out the wishes of the leader.

These conferences are usually held for production purposes pure and simple, and as a result of them, definite jurisdiction may be assigned for various jobs, thus preventing a shifting of responsibilities. Subordinates absorb the idea of superiors as to their views and policies, thus bringing about a unity of understanding, subordinates may pledge their support to one another, and definite directions are given and received to be later followed out.

Such meetings are an efficient part of any well organized institution but their purpose is mainly directive and incidentally instructive and educational. It cannot be denied that some educational value is attached to meetings of this type, but there are few managers who call meetings of subordinates with the educational function uppermost in mind. On the contrary their meetings are called for the purpose of giving, and usually the subordinates attend with the attitude of receiving, definite directions for the performance of their work. Thus the directive attitude is uppermost in mind and be-

comes the major motive of these meetings. They are not essentially a method of training, although often so interpreted, but they are essentially a method which facilitates the giving of directions to a group of men with a minimum degree of effort and perhaps also with a maximum degree of efficiency.

While they are unquestionably effective from the production standpoint, their effectiveness from the training standpoint is easily questionable, for the superior who automatically becomes leader of the group may be an excellent director but a poor instructor or teacher. Too frequently in such meetings the subordinate accepts the direction or the statements of the leader because he hesitates to display his ignorance and leaves the meeting directed but not informed. It is perhaps not out of place to mention that not unfrequently these meetings become a "session with the old man" rather than a medium for constructive leadership.

The term "conference" probably contributes to the confusion which exists between meetings for production purposes and meetings for training purposes. Frequently upon the mention of Foreman Conference work from the training standpoint the production manager immediately replies that he personally brings his foremen together each week and talks things over with them, he runs the conferences personally and sees no need for substituting or even adding more conferences or meetings. He takes a superficial attitude in regard to the suggested conferences and is often not disposed to give the proposed work the analysis and comparison it deserves. The meetings which are suggested to him, however, place the emphasis in converse order upon the values which are obtained from his meetings, namely; training is their direct function and the increased production their indirect result. This is true regardless of the method followed in the organized training, whether it is by conference, by text, or by lecture.

As contrasted against the Production Conferences, in the *organized* training of foremen as carried on by any of the above methods, the meetings are led by a person who has no authority over the foremen, with whom their discussions can be open and frank, who can approach their problems with an unbiased viewpoint, who is trained not only as a teacher but as an analyst. The nature of his position is such that he cannot give directions, therefore, he must lead the men to think out their own salvation. In the organized training of foremen under the plan of Foreman Training, the ability of foremen is developed by constructive assistance in



checking up their weaknesses. A mutual exchange of viewpoints and opinion can occur in such meetings to a degree that would be impossible in Production Conferences. An integral part of the organized plan is that it sets up a series of meetings which are planned in terms of definite jobs which link up with one another in sequence. There is the possibility of assignment of reading matter or texts and a follow-up of the study given the assignment or there is the possibility of improving analytical ability, either result being dependent upon the method selected.

The organized training of foremen cannot be expected to eliminate the Production Conference, each have a totally different function, but each may supplement the other. The business organization which utilizes both plans and links them closely together, for they are inseparable when once established, will harvest the best results.